

FIGURE 1

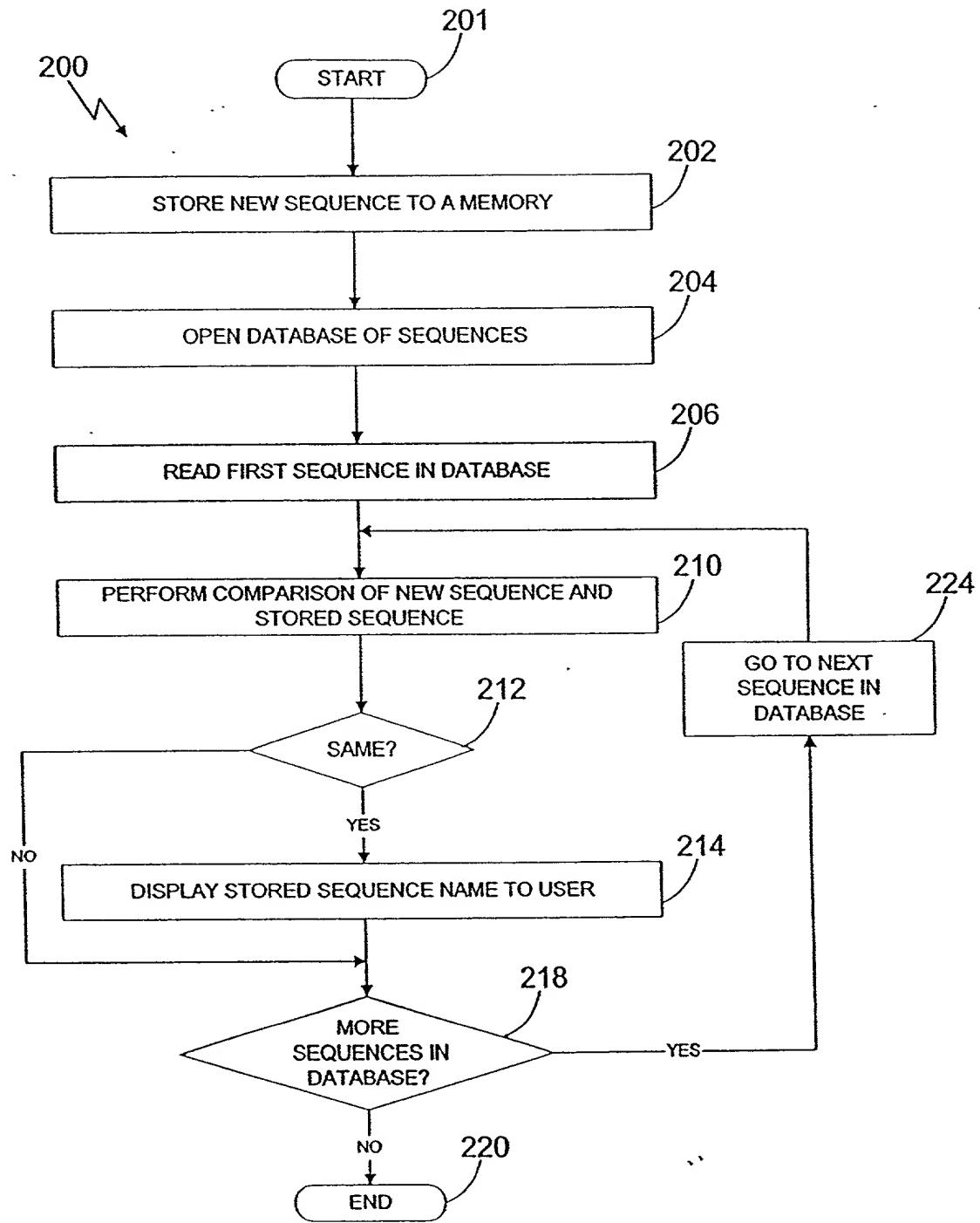


FIGURE 2

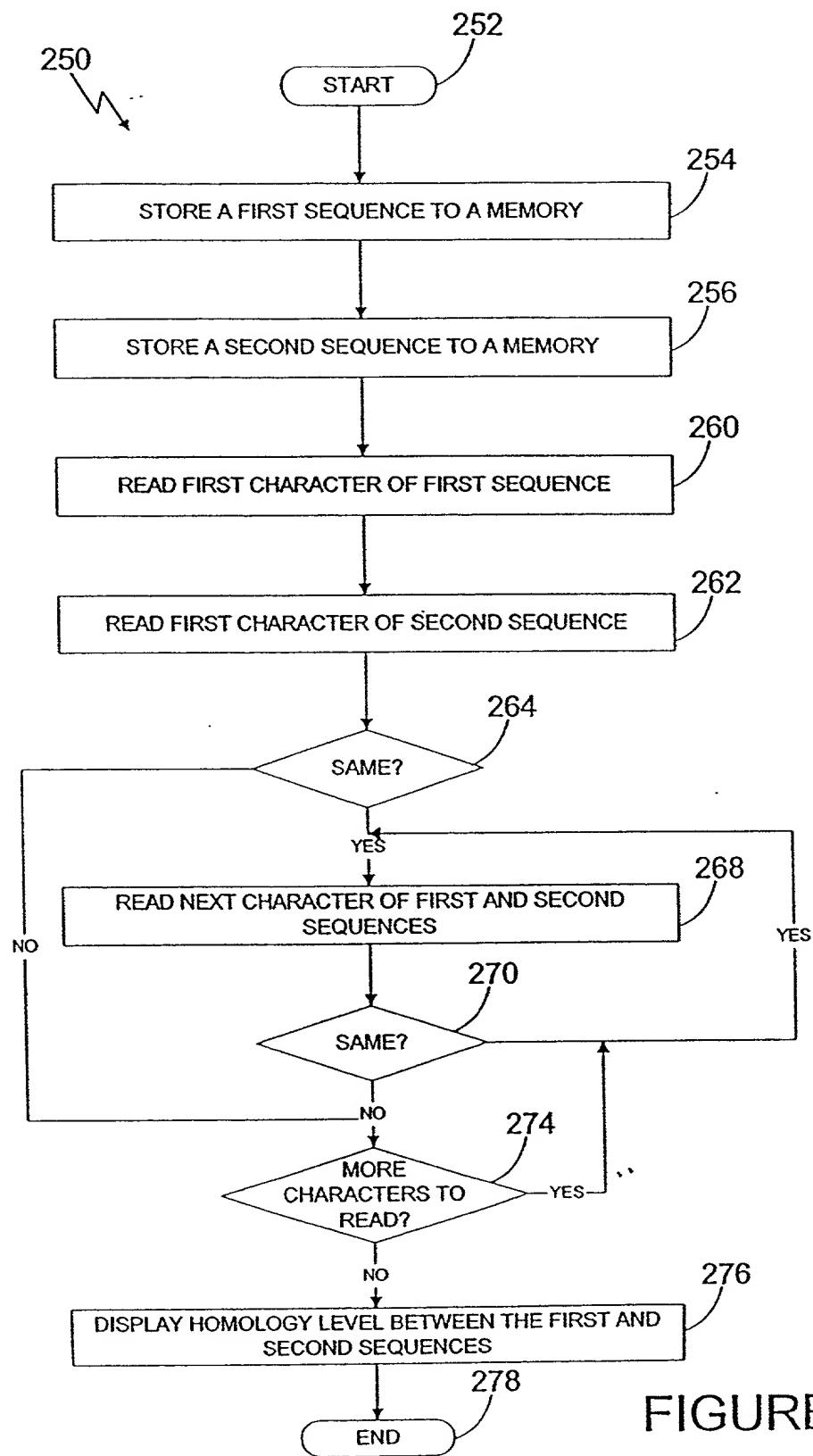


FIGURE 3

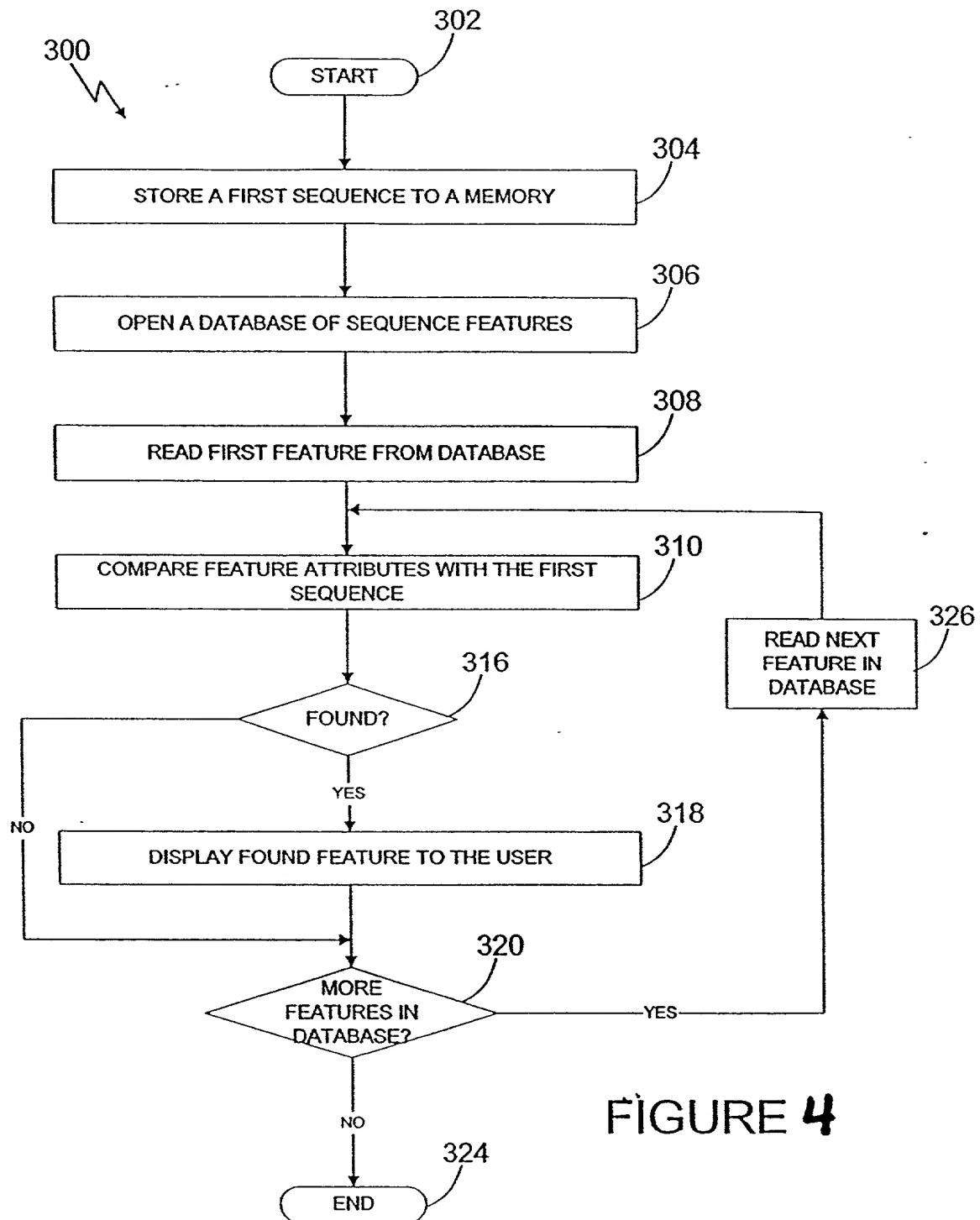


FIGURE 4

FIGURE 5
Alcaligenes (Deleya) aquamarinus Catalase - 64CA2

(SEQ ID NO: 5)
(SEQ ID NO: 6)

1 ATG AAT AAC GCA TCC GCT GAC GAT CTA CAC AGT AGC TTG CAG CAA AGA TGC AGA GCA TTT 60
Met Asn Asn Ala Ser Ala Asp Asp Leu His Ser Ser Leu Gln Gln Arg Cys Arg Ala Phe 20
61 GTT CCC TTG GTA TCG CCA AGG CAT AGA GCA ATA AGG GAG AGA GCT ATG AGC GGT AAA TGT 120
Val Pro Leu Val Ser Pro Arg His Arg Ala Ile Arg Glu Arg Ala Met Ser Gly Lys Cys 40
121 CCT GTC ATG CAC CGT AAC ACC TCG ACC GGT ACT TCC AAC AAA GAT TGG TGG CCG GAA 180
Pro Val Met His Gly Ile Asn Thr Ser Thr Gly Thr Ser Asn Lys Asp Tri p Trp Pro Glu 60
181 GGG TTG AAC CTG GAT ATT TTG CAT CAG CAA GAT CGC AAA TCA GAC CCG ATG GAT CCG GAT 240
Gly Leu Asn Leu Asp Ile Ileu His Gin Gln Asp Arg Lys Ser Asp Pro Met Asp Pro Asp 80
241 TTC AAC TAC CGT GAA GAA GTA CGC AAG CTC GAT TTC GAC GCG CTG AAG AAA GAT GTC CAC 300
Phe Asn Tyr Arg Glu Glu Val Arg Lys Leu Asp Phe Asp Ala Leu Lys Lys Asp Val His 100
301 GCG TTG ATG ACC GAT AGC CAA GAG TGG TGG CCC GCT GAC TGG GGG CAC TAC GGC GGT TTG 360
Ala Leu Met Thr Asp Ser Gin Glu Trp Trp Pro Ala Asp Tri p Glu His Tyr GLY Gly Leu 120
361 ATG ATC CGT ATG GCT TCC GAC ACC TAC CGT ATT GCT GAT GGC CGT GGG GGC 420
Met Ile Arg Met Ala Trp His Ser Ala Gly Thr Tyr Arg Ile Ala Asp Gly Arg Gly Arg Gly 140
421 GGT GGT ACC GGA AGC CAG CGG CTC AAC TCC TCC CCG GAC AAC GTC AGC CTG 480
Gly Thr Gly Ser Gln Arg Phe Ala Pro Leu Asn Ser Tri p Pro Asp Asn Val Ser Leu 160
481 GAT AAA GCG CGG CGT CTG CTG TGG CCG ATC AAG AAG TAC GGC AAC AAA ATC AGC TGG 540
Asp Lys Ala Arg Arg Leu Leu Trp Pro Ile Lys Lys Tyr GLY Asn Lys Ile Ser Trp 180
541 GCA GAC CTG ATG ATT CTG GCT GGC ACC GTG GCT TAT GAG TCC ATG GGC TTA CCT GCT TAC 600
Ala Asp Leu Met Ile Leu Ala Gly Thr Val Ala Tyr Glu Ser Met Gly Leu Pro Ala Tyr 200
601 GGC TTC TCT TIC GGC CGC GTC GAT ATT TGG GAA AAA GAT ATC TAC TGG GGT GAC 660
Gly Phe Ser Phe Gly Arg Val Asp Ile Trp Glu Pro Glu Lys Asp Ile Tyr Trp GLY Asp 220

FIGURE 6
Microscilla furvescens Catalase - 53CA1

(SEQ ID NO: 7)
(SEQ ID NO: 8)

1 ATG GAA MAT CAC AAA CAC TCA GGA TCT TCT ACG TAT AAC ACA AAC ACT GGC GGA AAA TGC
Met Glu Asn His Lys His Ser Gly Ser Gly Ser Thr Tyr Asn Thr Asn Thr Gly GLY Lys Cys 60
61 CCT TTT ACC GGA GGT TCG CTT AAG CAA ACT GCA GGT GGC GGC ACC AAA AAC AGG GAT TGG 120
Pro Phe Thr Gly Gly Ser Leu Lys Gin Ser Ala Gly Gly Thr Lys Asn Arg Asp Trp 40
121 TGG CCC AAC ATG CTC AAC CTC GGC ATC TTA CGC CAA CAT TCA TCG CTA TCG GAC CCA AAC 180
Trp Pro Asn Met Leu Asn Leu Gly Ile Leu Arg Gin His Ser Ser Leu Ser Asp Pro Asn 60
181 GAC CCG GAT TTT GAC TAT GCC GAA GAG TTT AAG AAG CTA GAT CTG GCA GGC GTT AAA AAG 240
Asp Pro Asp Phe Asp Thr Ala Glu Glu Phe Lys Lys Leu Asp Leu Ala Val Lys Lys 80
241 GAC CTG GCA GCG CTA ATG ACA GAT TCA CAG GAC TGG TGG CCA GCA GAT TAC GGT CAT TAT 300
Asp Leu Ala Ala Leu Met Thr Asp Ser Gin Asp Trp Trp Pro Ala Asp Tyr Gly His Tyr 100
301 GGC CCC TTC TTT ATA CGC ATG GCG TGG CAC AGC GCC GCC ACC TAC CGT ATC GGT GAT GGC 360
Pro Phe Phe Ile Arg Met Ala Trp His Ser Ala Gly Thr Tyr Arg Ile Gly Asp Gly 120
361 CGT GGT GGC GGT TCC GGC TCA CAG CGC TTC GCG CCT CTC AAT AGC TGG CCA GAC AAT 420
121 Arg Gly Gly Ser Gly Ser Gin Arg Phe Ala Pro Leu Asn Ser Trp Pro Asp Asn 140
421 GCC AAT CTG GAT AAA GCA CGA CGC TTG CTT CTT TGG CCC ATC AAA TAC GGT CGA AAA 480
141 Ala Asn Leu Asp Lys Ala Arg Leu Leu Leu Trp Pro Ile Lys Tyr Gly Arg Lys 160
481 ATC TCC TGG GCG GAT CTA ATG ATA CTC ACA GCA AAC GTA GCT CTG GAA ACT ATG GGC TTT 540
161 Ile Ser Trp Ala Asp Ile Met Ile Leu Thr Gly Asn Val Ala Leu Glu Thr Met Gly Phe 180
541 AAA ACT TTT GGT TTT GCA GGT AGA GCA GAT GTA TGG GAG CCT GAA GAA GAT GTA TAC 600
181 Lys Thr Phe Gly Phe Ala Gly Arg Ala Asp Val Trp Glu Pro Glu Asp Val Tyr 200
601 TGG GGA GCA GAA ACC GAA TGG CTG GGA GAC GAG CGC TAT GAA GGT GAC CGA GAG CTC GAA 660
201 Trp Gly Ala Glu Thr Gly Asp Lys Arg Tyr Glu Gly Asp Arg Glu Leu Glu 220